

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Augustine M. K. Choi et al.

Art Unit : 1616

Serial No.: 10/053,535

Examiner: F. Choi

Filed

: January 15, 2002

Title

: CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT

Commissioner for Patents Washington, D.C. 20231

### REQUEST TO CORRECT INVENTORSHIP UNDER 37 C.F.R. §1.48(a)(1)

Applicants submit that inventorship of the above-referenced application was set forth in error. Specifically, Patty J. Lee was erroneously named as an inventor and Leo E. Otterbein's first and last names were inadvertently reversed. This error arose without any deceptive intention on the part of the inventors. Accordingly, applicants request that inventorship be changed from "AUGUSTINE M. K. CHOI, PATTY J. LEE, AND OTTERBEIN E. LEO" to "AUGUSTINE M. K. CHOI AND LEO E. OTTERBEIN."

Enclosed are the following, as required by 37 C.F.R. § 1.48(a):

- (1) a declaration executed by Patty J. Lee, a person being deleted as an inventor, which states that the error in inventorship occurred without deceptive intent on her part;
- (2) a declaration under C.F.R. § 1.63 executed by Augustine M. K. Choi and Leo E. Otterbein, the actual inventors;
- (3) written consent for the change in inventorship from Yale University and Johns Hopkins University, the two co-assignees of the above-referenced application; and
  - (4) a check for \$130 for the processing fee set forth in 37 C.F.R. § 1.17(i).

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CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

Date of Deposit

Signature

Applicant: Augustine M. K. Choi et al. Attorney's Docket No.: 13681-003002

Serial No.: 10/053,535 Filed : January 15, 2002

Page

Please apply any other charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 13681-003002.

Respectfully submitted,

Janis K. Fraser, Ph.D., J.D.

Reg. No. 34,819

Fish & Richardson P.C. 225 Franklin Street Boston, Massachusetts 02110-2804

Telephone: (617) 542-5070 Facsimile: (617) 542-8906

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Augustine M. K. Choi et al.

Serial No.: 10/053,535

Art Unit: 1616
Examiner: F. Choi

Filed

; January 15, 2002

Title : CARBON

: CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT

Commissioner for Patents Washington, D.C. 20231

# PETITION TO CORRECT INVENTORSHIP INVENTOR'S DECLARATION UNDER 37 C.F.R. §1.48(A)(2)

### I, PATTY J. LEE, hereby declare:

- 1. That I am an original named inventor of the above-referenced patent application, and its parent application, U.S.S.N. 09/538,788.
- That through error, without any deceptive intention on my part, the above-referenced application and its parent application were filed naming as inventors AUGUSTINE M. K. CHOI, PATTY J. LEE AND OTTERBEIN E. LEO, rather than AUGUSTINE M. K. CHOI AND LEO E. OTTERBEIN.

### CERTIFICATE OF MAILING BY FIRST CLASS MAIL

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Attorney's Docket No.: 13681-003002

Applicant: Augustine M. K. Choi et al.

Serial No.: 10/053,535 : January 15, 2002 Filed

: 2 Page

That all statements made herein of my own knowledge are true and that all 3. statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

e,

Fish & Richardson P.C. 225 Franklin Street Boston, Massachusetts 02110-2804

Telephone: (617) 542-5070 Facsimile: (617) 542-8906

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Augustine M. K. Choi et al.

: 1616 Art Unit

Serial No.: 10/053,535

Examiner: F. Choi

Filed

: January 15, 2002

Title

: CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## DECLARATION OF DR. LEO OTTERBEIN UNDER 37 CFR 1.132

Sir:

### I. Leo E. Otterbein, hereby declare as follows:

- I am a co-inventor with Augustine M. K. Choi of the subject matter described and (1) presently claimed in the above-identified application.
- I am co-author with Augustine M. K. Choi, Jeff T. Chapman, and Jack A. Elias on **(2)** the abstract entitled "Exogenous Carbon Monoxide Attenuates Aeroallergen-Induced Eosinophilic Inflammation in Mice" that was published in the American Journal of Respiratory Critical Care Medicine, volume 159, at page A218 (1999).
- In the work reported in the above-referenced publication, Dr. Chapman worked (3) under the direction of Dr. Choi and myself. Dr. Elias was Dr. Chapman's thesis advisor and is an expert in the field of the biology of asthma and in the mouse model described in the abstract. Dr. Chapman and Dr. Elias made no inventive contributions to the present claims.

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

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Date of Deposi

Signature

Applicant: Augustine M. K. Choi et al.

Scrial No.: 10/053,535 Filed: January 15, 2002

Page

: 2 of 2

Attorney's Docket No.: 13681-003002

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

11/17/03

Date

Leo E. Otterbein, Ph.D.

### COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled <u>CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT</u>, the specification of which:

<u>[</u> ]	is attached hereto.  was filed on <u>January 15, 2002</u> as Application Serial No. <u>10/053,535</u> and was amended on			
	·			
I he	reby state that I have revie claims, as amended by an	wed and understand the content y amendment referred to above,	of the above-identified specification,	,
I acl Title 37, Cod	knowledge the duty to disc e of Federal Regulations,	lose all information I know to b §1.56.	e material to patentability in accordan	ce with
I her application(s)	reby claim the benefit unde ) listed below:	er Title 35, United States Code,	§119(c)(1) of any United States provi	sional
	U.S. Serial No.	Filing Date	Status	
60/12	27,616	April 1, 1999	Expired	_
of Federal Re	the duty to disclose all inf	ormation I know to be material obscure available between the fit of this application;	of Title 35, United States Code, §112 o patentability as defined in Title 37, ling date of the prior application and	Code
09/53	8,788	Filing Date March 30, 2000	Status Abandoned	-
Janis K. Frasc Timothy A. P. Jack Brennan	e Patent and Trademark O 77, Ph.D., J.D., Rog. No. 34 rench, Reg. No. 30,175 , Reg. No. 47,443	ffice connected therowith: 1,819 John W. Fre J. Peter Fas Anita L. Me	cute this application and to transact al seman, Reg. No. 29,066 se, Reg. No. 32,983 iklejohn, Reg. No. 35,283	1
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Attorney's Docket No.: 13681-003002

# Combined Declaration and Power of Attorney Page 2 of 2 Pages

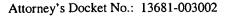
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name of Inventor: Inventor's Signature: Residence Address: Citizenship: Post Office Address;	Pittsburgh, PA United States 43 Long Meadow Dr. Pittsburgh, PA 15238	Date:	9/8/0
Full Name of Inventor:	LEO E. OTTERBEIN		
Inventor's Signature;		Date:	
Residence Address:	New Kensington, PA		
Citizenship:	United States		
Post Office Address:	910 Normandy Dr.		
	New Kensington, PA 15068		
20576587.doc			

# Combined Declaration and Power of Attorney Page 2 of 2 Pages

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name of Inventor:	AUGUSTINE M. K. CHOI		
Inventor's Signature: Residence Address: Citizenship: Post Office Address:	Pittsburgh, PA United States 43 Long Meadow Dr. Pittsburgh, PA 15238	Date:	
Full Name of Inventor: Inventor's Signature: Residence Address: Citizenship: Post Office Address:	New Kensington, PA United States 910 Normandy Dr. New Kensington, PA 15068	Date:	8/15/03





#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Augustine M. K. Choi et al. Art Unit: 1616
Serial No.: 10/053,535
Examiner: F. Choi

Filed : January 15, 2002

Title : CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT

Commissioner for Patents Washington, D.C. 20231

### WRITTEN CONSENT FOR CHANGE IN INVENTORSHIP UNDER 37 C.F.R. §1.48(A)(5)

Under 37 CFR §3.73(b), Yale University, a corporation having a place of business at Two Whitney Avenue, New Haven, CT 06511, and Johns Hopkins University, a corporation having a place of business at 111 Marketplace, Suite 906, Baltimore, MD 21202, certify that they are assignees of the above-referenced patent application by virtue of:

- 1. an assignment of the entire right, title and interest in a parent application, U.S.S.N. 09/538,788, from the inventors to Yale University, recorded in the United States Patent and Trademark Office on November 12, 2000, at Reel 011169, Frame 0792; and
- 2. A subsequent assignment of an undivided portion of the right, title, and interest in U.S.S.N. 09/538,788 and the above-referenced patent application from Yale University to Johns Hopkins University. A copy of the executed assignment is attached hereto.

The undersigned have reviewed all the documents in the chain of title of the above-identified application and to the best of undersigned knowledge and belief, title is in Yale University and Johns Hopkins University as joint owners. The undersigned, Dorothy K. Robinson, acting on behalf of Yale University, and R. Keith Baker, acting on behalf of Johns Hopkins University, hereby consent to changing inventorship of the above-referenced patent application from "AUGUSTINE M. K. CHOI, PATTY J. LEE, AND OTTERBEIN E. LEO" to "AUGUSTINE M. K. CHOI AND LEO E. OTTERBEIN."

#### CERTIFICATE OF MAILING BY FIRST CLASS MAIL

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Date of Deposit

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Applicant: Augustine M. K. Choi et al. Attorney's Docket No.: 13681-003002

Serial No.: 10/053,535 Filed: January 15, 2002

Page : 2

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States

Code and that such willful false statements may jeopardize the validity of the application or any

patents issued thereon.

•	Respectfully submitted,
	Yale University
Date:	By: Toroply Knobusy
	Dorothy K. Robinson
	Vice President and General Counsel

Applicant: Augustine M. K. Choi et al.

Serial No.: 10/053,535 Filed: January 15, 2002

Page: 3

Date:\_\_\_

Johns Hopkins University

3y: \_\_\_\_

Senior Director, Licensing and Technology Development

Attorney's Docket No.: 13681-003002

Fish & Richardson P.C. 225 Franklin Street Boston, Massachusetts 02110-2804

Telephone: (617) 542-5070 Facsimile: (617) 542-8906

### PATENT ASSIGNMENT

WHEREAS, Yale University, a Connecticut corporation, having a place of business at Two Whitney Avenue, New Haven, CT 06511 ("ASSIGNOR"), is the owner of the entire right, title and interest in and to certain United States patent applications as well as certain foreign patent applications corresponding thereto, said patent applications being identified in the attached Exhibit A and being hereinafter referred to as "PATENT APPLICATIONS."

WHEREAS, Johns Hopkins University, a Maryland corporation, having a place of business at 111 Marketplace, Suite 906, Baltimore, MD 21202 ("ASSIGNEE"), is desirous of obtaining certain ownership rights as a Joint Owner with ASSIGNOR in and to the PATENT APPLICATIONS.

NOW, THEREFORE, in consideration of good and valuable considerations paid by ASSIGNEE to ASSIGNOR, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE, as a Joint Owner with ASSIGNOR, and to its successors and assignees, an undivided portion of the right, title, and interest that ASSIGNOR owns throughout the world in the inventions and improvements that are the subject of the United States and foreign patent applications set forth in Exhibit A; this assignment including said applications, any and all United States and foreign patents, utility models, continuations, continuations-in-part, divisionals, reexaminations, reissues, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said applications under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes.

ASSIGNOR agrees for itself and its successors, legal representatives and assigns, without further compensation, to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the ASSIGNEE may reasonably request to effectuate fully this assignment.

IN TESTIMONY WHEREOF, ASSIGNOR and ASSIGNEE have caused this Assignment to be executed by their respective duly authorized officer.

(ASSIGNOR)

Yale University

By:

Dorothy K. Robinson

Vice President and General Counsel

Towally Whobies

Date: 11403

**ACKNOWLEDGEMENT** 

**ASSIGNOR** 

State of Connecchiut:

County of Now House

On this 14th day of January, 2003, before me personally came Dorothy K. Robinson, to me known, who, being duly sworn, deposes and says that she is the Vice President and General Counsel of Yale University (ASSIGNOR), the corporation described in and which executed the foregoing instrument.

Hotary Public
My Commission Expires

Commissioner of the Superial Court

[Notary's Seal]

## (ASSIGNEE)

Johns Hopkins University By: R. Keith Baker Senior Director, Licensing and Technology Development Date: ACKNOWLEDGEMENT **ASSIGNEE** On this 30 day of April 2003, before me personally came R. Keith Baker, to me known, who, being duly sworn, deposes and says that he is the Senior Director, Licensing and Technology Development, of Johns Hopkins University (ASSIGNEE), the corporation described in and which executed the foregoing Notary Public My Commission Expires

[Notary's Seal]

instrument.

State of Mary land : : ss

County of Baltimere:

# SCHEDULE A

# U.S. Patent Applications

Appl. No.	Filing Date	Status
60/127,616	April 1, 1999	Expired
09/538,788	March 3, 2000	Abandoned in favor of 10/053,535
10/053,535	January 15, 2002	Pending

# Foreign Patent Applications

Country	Appl. No.	Filing Date	Status
Patent Cooperation Treaty	US02/14836	May 9, 2002	Pending